Pyro-illiac

GT
GENERAL TECHNICS

**PERPETRATED
LARGELY BY
JARGONISTS**

**NO. 19
MARCH 1979**

BEHOLD, THE FIRST PYRO - ILLIAC
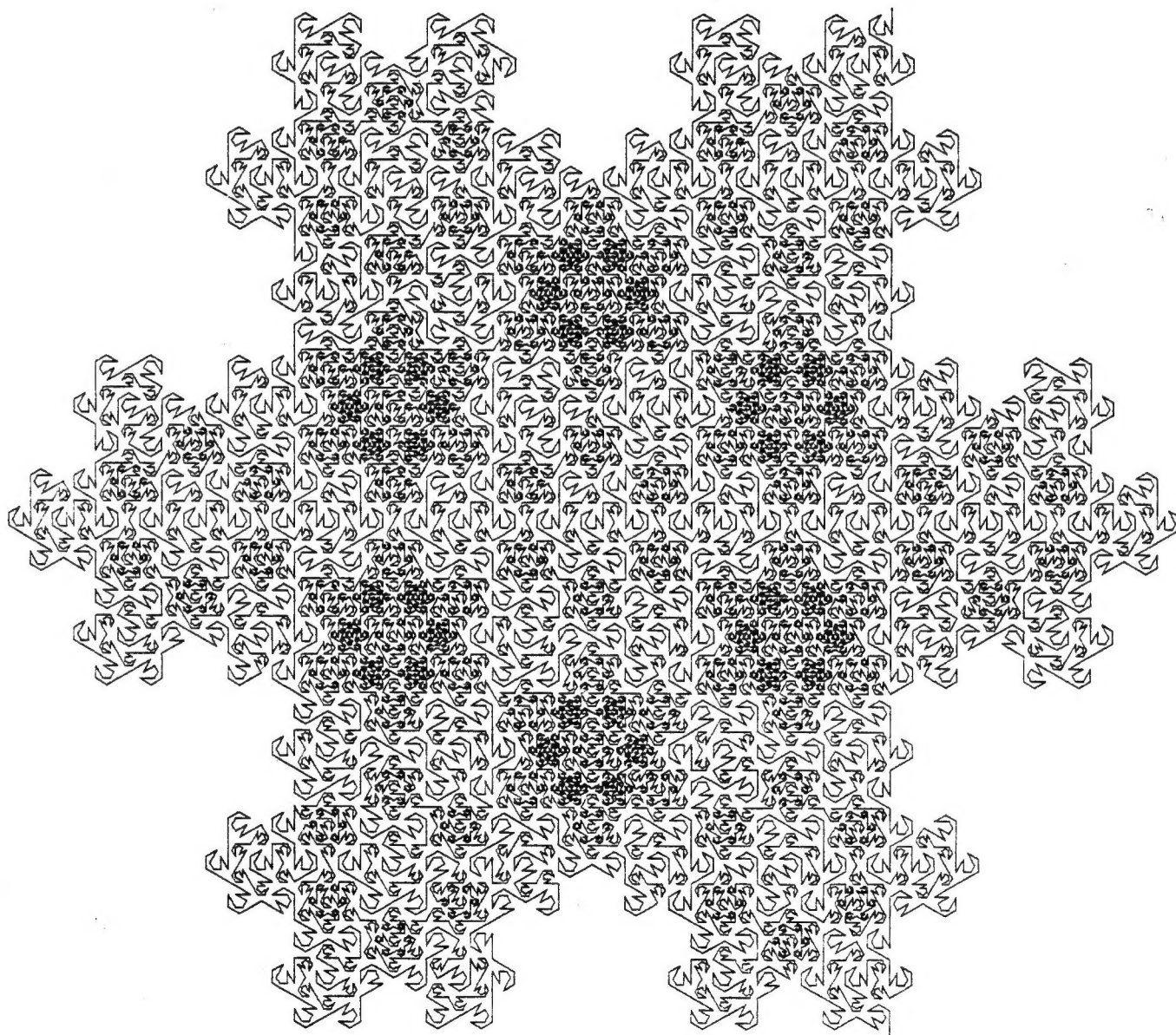
Hello from the home of Illiac I, II, III, and IV, the future home of Hal, the present home of Michael Bentley, Eric Gullerud, Alex Ellingsen (to be removed to Calamityzoo very shortly), Keith Thorne, Rolf Wilson, Linda Strewe (or do you say Streue?), Jon Babbin, Mike Garrett, etc.

Techie Press Association Release

Renee Sieber, famous lass of the Calamity zoo locale, will be tackling the fearful task of engaging and running, in a palatable fashion, an amateur press association thing called APA - TECH. The phenomenon that will be making this undertaking less nerve-flaying is the sudden greater concentration of TECHNOLOGY in the House of Isher. Renee (and Tullio, we suppose) will be obtaining a mimeograph to compliment the dittoer seen by several reporters in the back room at Ishercon. Alex will be bringing the Alex Ellingsen Fractionally Unpaid Travelling Computer Show when [if] he transfers himself to Calamity zoo.

There are some minor requirements to adhere to if a person is interested in joining APA - TECH. First and foremost on the list is the understandable rule that says you must submit a minimal amount of original written material (artwork? certainly) within a certain period of time since your last submission. Jeff Duntemann is inundated with material for Pyrotechnics, therefore it is certain that the field of writing techies is not empty. The rule is there to make it worth the effort: you don't write, you don't get. The second regulation is that you don't have to follow the original Pyrotechnics rule that each article must devote 60% of its content to nonsense.

Our cover is a Flosnak, a close relation to a snowflake. It is a single line drawing as calculated with the help of a Cyber 175. The Cyber was whipped into line by an Operator (boom de boom boom) called Eric Gullerud.

The magic technique used in the routine that created the file that told the Calcomp which controlled the pen and paper that Jack built (inside joke) is called RECURSION. RECURSION is found in all reasonable computer languages. This is where a program stores all the information it can find in a hidden slot known only to it at that time, and calls itself, giving itself new values. This can continue for as long as there is memory to store the hidden information. A recursion ends when a program decides to give up and END. Whatever called that program in the first place (itself?) will resume whatever it was doing, snatching back all the information it hid.

How to Have Fun With $4,000.00

Here are the specifications I have preliminarily decided to use to develop what could be called a dungeonmaster's helper. I'm by nature an SF person and NOT a fantasy freak, so my online dungeon is really a Heinlein - Ellison - Foglio - O'neil - Whoeverelse concept of an unreasonably large spacecraft in space.

My ship looks like a floppy disk (if you take off the protective wrapper). There's a big hold in the center, and it is round, though there aren't any sector holes.

My system has IBM softsector formatted disks, which means my spaceship won't be nearly as big as I want it to be. The IBM format is a national standard, but it is horribly inefficient, utilizing 60% of the usable area on the surface of the disk for data. That'll be fixed when I switch to double density, but until then, that's the way it goes.

There are 77 circular "levels" in the spaceship. Why 77 levels? There are 77 circular tracks on IBM softsectorformatted disks. That's my reason, I don't know what IBM's was. There are 128 bytes per "cellblock", with 32 cells in each cellblock (4 bytes allocated to each cell). Each cellblock is organized in 2 rows of 16 cells. There are 26 cellblocks on each level of the spaceship. Why 26? Again, this reflects exactly the organization of an IBM single density disk. The spaceship does not have univform size cells. I made the following cryptic algorithm for calculating the size of a cell:

$$x := (PI*(74.5+((9+(77-level))*(77-level))))*2$$

The outermost level is level 0. The innermost level is 76. Cells (OK, they're "ROOMS") on level 0 are HUGE, 77 meters tall, 41057 meters wide, and 41057 meters long. Rooms like that are used for growing crops and housing drive-in movies. Cells on level 76 are rather standard size dungeon rooms, 9 X 9 X 9 meters.

All this makes a grotesque spaceship. Looking inside one of the cells, one finds the outermost walls tend to take on a slant. I think it adds
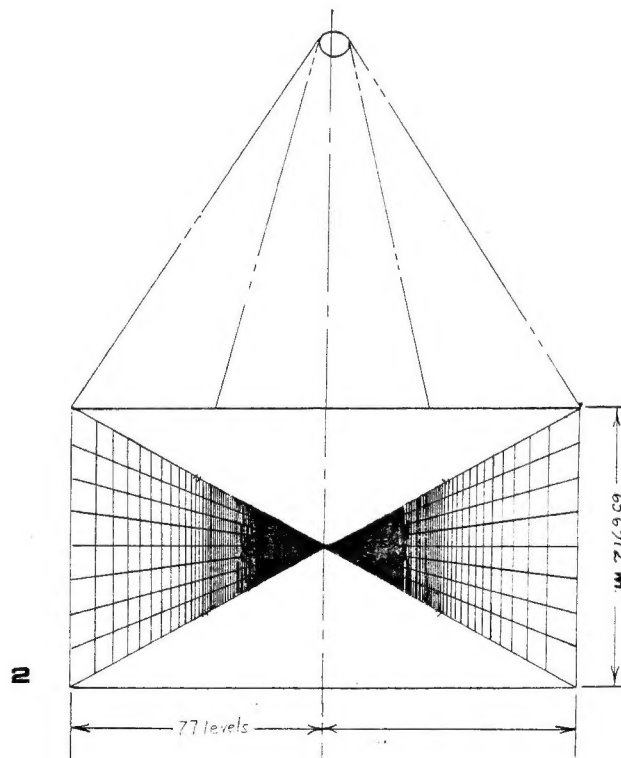
charisma. You probably have a different opinion.

There is a single symmetric axis around which the ship rotates. Reference directions inside the ship are rather interesting: Spinwise, Antispinwise, Headwise, Tailwise, Inwise, and Outwise.

The ball attached to one end of the ship by long cables is the super-neato rocket engine. Fusion explosions are generated within, viciously driving beer cans and other whatnot out a hole which is aimed at times through the hollow axis of the ship. Couse and effect: the engine either pulses the ship forward or everyone gets assaulted by garbage. Don't ever try to sneak up behind this thing.

Other little things that make the system work:

The "dungeon" initialization routines
The "dungeon" display routines
The online "monster" catalog
The probability and dice throw generator

The language I have decided to use is FORTH. The software is designed to be as interactive as possible, and the variation of FORTH that I have, =STOIC=, is DAMN interactive, by far the most user - oriented system I have ever used. FORTH could become one of my too two languages (Pascal is number one). APL is another language, one I wouldn't touch with anything shorter than a long snake rod, because of all the special treatment it requires (large memory and a special character set). I have written STOIC (FORTH) routines. The language, after a few hours of talking to myself, is confusing. It is different! I managed to get a LIFE program running using an algorithm banned in BASIC for years by experienced BASIC writers.

A few Pyros ago, I wrote something describing a complex series of software modules that would simulate life in interstellar space. The program was going to be written in TUTOR and on the Plato system based in Urbana. We figured it would take a huge amount of storage, and we were right; the requirements were so large and the red tape involved in obtaining scarce disk space on CERL - PLATO was so long that after two years of planning, we have given up. Nova will probably go down as the largest Plato space game ever unless present trends change. Oh well.

KALAMAZOO KAPERS
OR
WHERE WERE YOU THE NIGHT
THE BUTTER RAN OUT?

The kitchen is swarming with fans, some preparing supper, some swilling Coke, some nibbling on the goodies that litter the kitchen table. Before the big sign-in board on one tterrefrigerator, Mike Bentley muses, intent upon spelling his name. Jonathan Babbin carefully fills a monumental bowl with salad, reaching now for cucumber or carrot. He is surrounded by more greenery than Tarzan of the Apes. Beyond, in the dining room, Tullio Proni and Barry Gehm wear gas masks and duel with giant plastic candy canes.

As i reach up under my antlers to disconnect my blinking "red nose" LED, someone says, "This is nothing. You should have been here last night..."

*   *   *   *   *   *   *   *

Everyone in GT must know by now that the marvelous Plexiglas ray guns so ubiquitous in fandom are manufactured in Kalamazoo, Michigan, under the direction of that singular heir to Tesla's throne, Tullio Proni. During 1978 Tullio and GT's favorite shiggy, Renee Sieber, founded Isher Enterprises [1] and bought a house in Kalamazoo. It would serve as home and headquarters for the Weapon Shops and other audacious schemes. Old-timers among you recall that more famous fannish residence, the Slan Shack, was established not far away (Battle Creek) in 1943.

In a gesture magnanimous or insane, Renee and Tullio invited several dozen friends to begin 1979 by officially christening the House of Isher at Midnight on New Year's Eve. Bringing food for the holiday feast, fen too numerous to name poured in from Detroit, Columbus, Holland, Chicago, Houston, New York, and even from far-flung Lisle, Illinois (Lisle Fandom Lives!).

I myself arrived New Year's Eve fresh from a raucous weekend in South Bend. The affair had already been in full swing for a day, which explains the chaos that faced me when I stepped into Isher's kitchen.

Bill Colsher and Phyllis Eisenstein were trading folksongs in the living room, so I warmed up my uke and sat down. Lots of people drifted in, and in no time we had a fair-sized chorale. Unfortunately Bill was in the grip of a strange delusion: every song we played began to sound to him like "Benson Arizona," the love theme from the Movie Dark Star (*** PLUG *** which ChUSFA is showing the week of Feb 16 in Urbana, Ill *** PLUG *** - MB). Again and again and AGAIN our tunes would dissolve into the :

Benson, Arizona, the warm wind in your hair
My body flies the galaxies, my heart longs to be there...

Meanwhile, the various courses of dinner began to circulate through the crowd - Jonathan's salad, onion soup, Steve Johnson's Swedish hypnosis bread, and other oddities. The main attraction was the biggest turkey in Kalamazoo. I think it was part bandersnatch. Even so, it barely fed the throng of fans assembled in the dining room. Dessert might be two pecan pies with "SF" spelled out in jellybeans, or the cherry pies that Alice and Angel Insley brought. Sorry I can't give credit to the authors of more dishes, but I wasn't taking notes while stuffing my face. ((Mr. Ellingsen, pop, dad and father of A squared Ellingsen, otherwise known as Tiny Al or Alex the Other, is responsible for the ocean of onion soup. That's as far as my memory goes... - MB)).

I volunteered for a run to the local Seven-Eleven after dinner. The purpose was not just to replenish a few items we were low on but, wielding ray guns and wiggling our pipe-cleaner antennae, to astonish the mundane Kalamazooids. Kalamazoonians. Kalamazourians. Mark Hyde, a Kalamazote himself, acted as our native guide. To me he entrusted his famous laser bazooooooka. Barry Gehm and Keith Thorne armed themselves with standard Isher blasters, while Captain Al Duester strapped on his faithful strobe gun. We irradiated the 7-11 as well as a few New Year's Eve parties on the way back. Our booty included butter for tomorrow's pancakes and the ingredients for Phil Foglio's favorite punch, the Foundation and Empire. Ask Phil for the recipe.

Unfortunately I did not realize that earlier in the day I had parked my car so as to block somebody's drively. Just a teeny bit.

So it was that while we were gone, and while half a dozen people wrapped the hourse and each other in 1" mylar capacitor ribbon that Al and Todd had brought along, a police officer rang the doorbell. Renee opened the door.

"Yes?"

The officer looked at Renee, dressed in her sexy black velvet formal and her fuzzy black antennae. Beyond her, the mylar folks, now all wrapped up together in sort of a big bundle, looked on with interest. All wearing antennae. He was taken, to say the least, aback.

"Uh-- does anybody here own the brown Maverick across the street? It's, um, blocking a driveway..."

R. caught some of his consternation. "Oh, that's Bill's car. But he's not here right now."

3

"Where is he?"

Renee began to sense how strange this all must look to Kalamazoo's finest.

"He went out to get some -- er -- butter."

Clearly the situation was deteriorating.

After assuring the officer that I would move the vehicle immediately upon my return, Renee decided that a little friendliness might put him at ease. She gave him her warmest smile. "Why don't you stop by after you get off duty?"

"Yeah. Um, maybe I will," said the officer, edging nervously away. "Should I bring my own butter?"

Upon our return we found Phyllis conducting a folk-dancing class in the front hallway. Everybody seemed to be doing pretty well, considering the lack of music and the general dearth of Hebrew blood in the room.

Once this lively scene subsided people began to prepare for the Big Christening at midnight., Keith dug out his model rockets, Tullio wandered off to look for his dusty bottle of Asti Spumonti, and various people were assigned to take pictures. Barry and I snuck off into a corner with my uke and dasked off a song to commemorate the occasion.

At the appointed hour a knot of people and apparatus gathered outside on the ice surrounding the front porch. Just as midnight tolled, Renee swept the bottle down upon the stone pillar, shattering it perfectly, and a loud HUZZAH! arose from the crowd. Barry and I sang our song uptempo, as the cold rapidly shrank the ukelele strings, sending them out of tune. After a couple of fizzled countdowns Keith finally managed to get something into the air with the aid of other techies.

After the climax at midnight the party seemed to run out of momentum. I crused through the various rooms of Isher looking for "action" and found none. In dark corners and upstairs bedrooms, some fans were even bedding down for the night. I wound up in Renee's room, talking with her, Mischa Sestak, and Julie Sieber.

As our conversation rambled, those still awake wandered by. Barry engaged in some kind of fight with Martha Soukup. Though she had the advantage of a loaded water pistol, Barry triumphed by disarming her with a sleeping bag. (A sleeping bag?) More people dropped in as other areas of the party closed down. Alex Ellingsen. Angel. Mike. Todd Johnson. Tullio. Mark. Gradually, subtly, they seated themselves about the room until there was noplace left to sit.

Barry would tell a story, then Alex would offer a snide comment. This would remind Phil of something he'd read as a boy, bringing a joke from Todd or Linda... we went on timelessly into the newly minted hours of 1979, speaking of Hopi Indians, stage trees, and Supergirl. Not to mention Benson, Arizona. It was truly a fine moment or hour or night. Reminded me of a similar occasion last Marcon.

Well, we didn't break up until about six. I spread out my bedroll beside the sliding door that separates Renee's bedroom from Tullio's. Lights were out, and I was trying to sleep, when I became aware of a strange sound.

"Pssssst!"

The whisper was coming from Alex on the 4 opposite side of the door. "What?" I responded.

" We make our break at midnight!"

There followed elaborate instructions for our escape. "Tap out your messages in ASCII code--" I dozed off.

I awoke about ten-thirty to the sound of folk-singing. The crew that slept while we spun tales last night was now on the job. I crept downstairs to a living room full of well-rested fen. Phyllis and Bill were singing again . Not quite up to that yet, I staggered into the kitchen.

Astonishingly, I was not the only one awake from the previous shift. A bunch of people stood around the kitchen feasting on -- on PANCAKES!! The thought of this primal food brought me to full consciousness. Lovely Didi Ellingsen handed me a plateful. Thus fortified, I joined Michelle Colsher, Linda, Alex Eisenstein, and other music lovers in the living room.

All too soon everyone was revived, and we began to fling suitcases, space helmets, and blasters into the trunks of our cars. The dassling affair was at an end, with time only for a final swig of Dr. Pepper and a goodbye kiss. Well, maybe two goodbye kisses. Ishercon began to slide into fannish legend, Kalamazoo sank into the rearview mirror, and we waved to Tullio and Renee.

Thanks.

Footnotes
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[1] See A.E. Van Vogt, The Weapon Shops of Isher.

FIFTH ESTATE SNORTS

It's time for an annual rating of the micromagazines. The ones I like are:

BYTE
has a multitude of adds and plenty of interesting (some sortof South Pole-ish) articles. I have no problem understanding what's going on in BYTE, but I'm an extreme case.

Dr. Dobbs
It occasionally has something interesting. It comes out too rarely for my tastes.

EDN
This is a freebee magazine that has a trillion adds and occasionally has some bizarre stuff. I wouldn't pay money for it, but...

Electronic News
Da Press. Hot off the News releases.

Computerworld
has nothing to do with micros, even with its weekly section on microcomputers. It doesn't contain very useful news, but it is fun to read about IBM vs. everyone else (apparently) once in a while. I've been told (source: Bill Colsher) that they pay well for articles, but you must tell them you want to be paid!

The following aren't so hot:

Interface Age
I wish this mag would eat flaming death. The title STILL doesn't make much sense.

Kilobaud
The editor tries to fight fire with marshmallows. 90 % of the articles are real tiny pittances, but some are interesting and/or useful. I have, as far as I know, one of the more reasonable hobbyist systems in Urbana, but I have yet to find anything applicable to my setup in this mag. Maybe I'm not looking hard enough. It seems this magazine can get stuff only on the nothing machines of the industry, the Pet, TRS 80, and the Apple II.

Welcome aboard the U.S.S. Enterprise, CVA (N) 65. There are 8 nuclear reactors. The ship can generate over 200,000 horsepower and is capable of attaining a speed of over 40 miles an hour. The Enterprise is 1,123 feet long over-all, 133 feet wide (width of main deck), and is 229 feet 6 inches (25 stories) deep. The ship displaces 85,350 tons. The number of the crew equals the number of students at Lane Technical High School: 4,600. There are over 3,000 compartments and spaces. There are four rudders, each weighing 35 tons. There are two anchors, both 30 tons. There are four five-blade propellors, 21 feet in diameter, each weighing 64,500 pounds. There are 1,800 telephones. It took 915 designers to draw 16,100 drawings and make 2,400 blueprints. There is about 625 miles of electrical cable and about 37 miles of ventilation and heating ducts in the Enterprise. There are approximately 1,000,000 tubes, transistors, and diodes (as of 1964, that is). The Enterprise can generate enough electricity for a city of 2,000,000. It has 25,000 lighting fixtures. There's approximately 7,000 square feet of switchboards. The auxiliary motors can generate about 30,000 horsepower.

The U.S.S. Eisenhower is bigger.
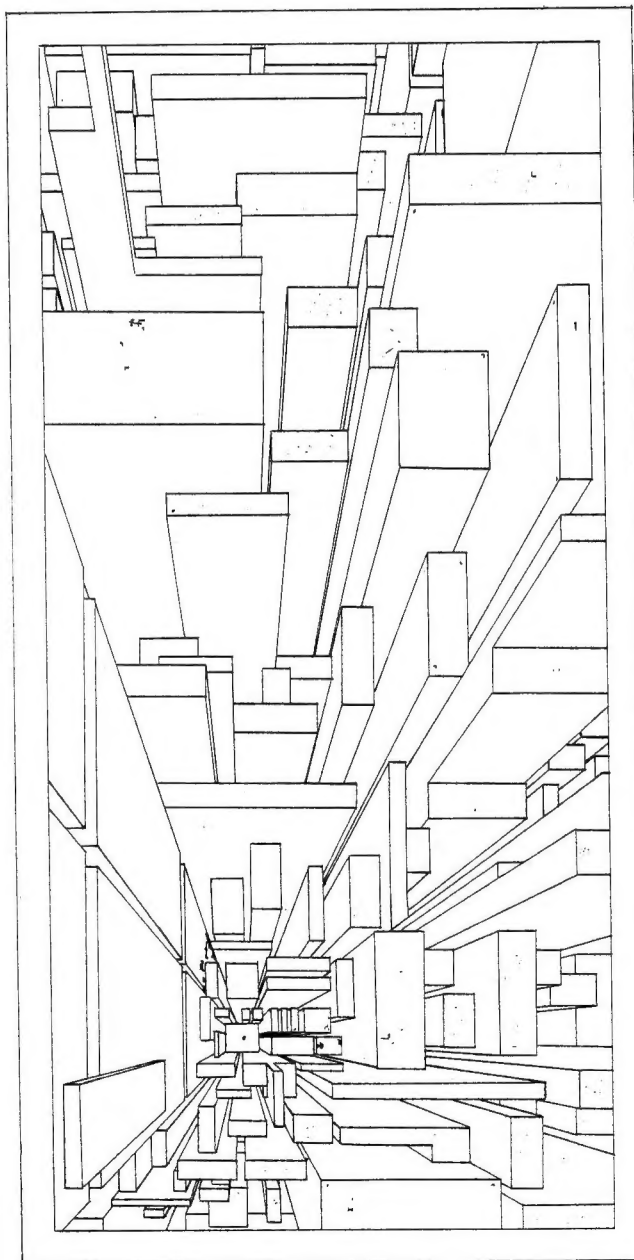
JOE THE ROBOT'S SONG

Fandom marveled in 1977 when two Midwestern wizzards, Tullio Proni and Steve Johnson, added motors and wheels to a Lawson Torpedo trashcan. Joe was a successful 'droid but, alas, has always been under radio control. He still yearns for autonomy...

(to: "If I Only Had a Brain")

When his classiest apparel
                is just a garbage barrel
It gives a robot pain
I could take on all opponents
                with my digital components
If I only had a brain

I would take no more baloney
                from Johnson or from Proni
Who tell me what to do
I'd ignore electron jockeys
                with their Touch-Tone walkie-talkies
If I had a CPU

At home
I'd write a poem
A sonnet, Petrarchan or Miltonic
In praise of thinkers positronic!

I could find a little lovin'
                with a lady radar oven
Or romance a pinball game
I could roll through conventions
                with uncrupulous intentions
If I only had brain

'WORLD'S TALLEST MESHLINITE   WORLD'S SHORTEST MESHLINITE

B.H.

TEXT TRICKS

Just some notes on how this Pyro was prepared. As you probably know, jeff prepares Pyros using a Diablo terminal hooked into a bigish computer system located several hundred miles away. Illini-Pyro was also prepared with the aid of a computer; several computers in fact.

As I sit here typing this, I'm using not one but two processors. The terminal I'm using to enter text is, in reality, Mike Bentley's SOL-20. It's a full-fledged 8080/S100 bus computer system complete with memory and floppy disks. The SOL is hooked to my IMSAI 8080 mainframe, also S100 bus. This is where we start getting fancy. The 8080 processor in the IMSAI has been replaced by an Alpha-Micro or AM100 CPU borrowed from my employer.

The AM100 is almost an exact duplicate of the DEC LSI 11. In fact, it is Micro-programmed from the same Western Digital chip set originally used to implement the LSI 11. Thusly, we get a sixteen bit microprocessor running on the eight bit S100 bus. This feat requires some fancy hardware and a slower system (each 16 bit memory fetch becomes two 8 bit memory fetchs, etc.), but we get the instruction set of a minicomputer and gain access to the hundreds of computer boards produced for the S100 bus. With the power of the AM100 instruction set, such things as Time-sharing and Multi-tasking become practical. Alpha-Micro's Operation System, AMOS, includes things like device independent I/O, PASCAL, BASIC, and LISP compilers, procedure files, random and sequential disk files, printer spooling, real time interrupts, text formatting (this Pyro), and numerous other features found on on mini and large scale computers.

Excuse my ravings, but I like the AM100! So why tell you all this (other then the ego boo of having access to this equipment)? (I'm sitting here typing in text on the third floor lounge/computer-room, listening to Bach on our combined stereo systems, and watching bidirectionally printed right and left justified carbon ribbon text on 8 1/2 by 11 inch fan fold paper come out of my Diablo). I'm telling you this because I am impressed. Three years ago this was impossible. But now, though not exactly common, it certainly is not unique. Imagine the next three years...

It seems I could use a glossary to explain some of the jargon above to the non-computer-freaks among us, but we're out of room. (go ahead and smell a sequel).
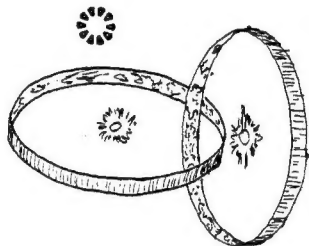
RINGWORLDS IN
DOUBLE STAR SYSTEM

- HIGGINS

Magazine Review: The Skeptical Inquirer

Published semi-annually (Spring/Summer and Fall/Winter), the Skeptical Inquirer is a magazine that covers anything of interest in the world of paranormal activities including: ESP, the Occult, biorhythms, parapsychology, and of course those ever evasive UFOs, just to name a few. The view of the magazine is that of a (hopefully) objective scientific view, though the people on the 'Committee for the Scientific Investigation of Claims of the Paranormal' (the publishers) are not restricted to scientists and include: L. Sprague de Camp, Issac Asimov, Martin Gardner, James Randi (magician) , B.F. Skinner, and Carl Sagan among others. This viewpoint tends to he scathingly critical (don't forget we're trying to be TOTALLY objective) of certain unmentionables (such as astrology), though the articles' contents seem to be left entirely up to the author and arguments from both sides are welcome. The following are some excerpts from their 'Psychic Vibrations' column, a sampling of things going on in their field:

"Speaking of Close Encounters, we reported last time on some of Columbia Pictures' pre-release promotional gimmicks. After the movie was out, Columbia unleashed a veritable blizzard of promotional hype. Among the more outrageous is an essay contest for students in grades 6 through 12. "You are about to encounter intelligent life from outer space. You may ask one question." In fifty words or less ,"you must think of a single question that you would ask a being from space and explain why you would ask that question." The winner gets a four-day, all-expenses-paid trip to Hollywood, accompanied by a chaperone and by his or her teacher. The booby prize is a a CE3K poster. MORE, the media magazine, reports that Columbia is also providing teachers with UFO "study kits," to help bring UFO fables into the classroom (and dollars into Columbia's pockets). In addition, they have established a Close Encounters club, which for just $5 not only brings you a regular newsletter with news of the latest sightings but also makes you eligible to have the account of your very own close encounter published! The massive publicity blitz is having its desired effect. TIME magazine reports that the Smithsonian Astrophysical Observatory, which doesn't care a fig about UFO sightings, has nonetheless suffered a 200 percent increase in the telephone UFO reports since the

movie's release. But the real bonanza has been at the Center for UFO Studies, in Evanston, Illinois , whose director, J. Allen Hynek, served as technical advisor for CE3K. The UFO center, which just happens to have UFO publications for sale, reports that since the movie opened ther mail has soared a whopping 1,500 percent."

"Ontario researcher George R. Harrison has issued an appeal for help. He is on the verge of a dramatic breakthrough in occult research, but he is having problems with "density slicing." A "density slicer" costs, he says, $30,000 or more. What astonishing discovery has he made? "Faces." Human faces, which appear spontaneously, in a mysterious manner. In what medium do they materialize? "Lead pencil and spit." Mr. Harrison explains:"Cover one side of a blank card with pencil lead. Wet your finger in your mouth and smear the lead. Study dried card for faces...Note:most people must relax their minds to see faces." He urges that an in depth study of these "faces " be done, preferably using microcomputers. Perhaps if he were to submit his proposal to the Stanford Research Institute..."

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Michael Brian Bentley
Software and Science Fiction

Member
JARGONISTS
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There are many 8 bit microprocessors in use these days: Pets, TRS-80s, Sols, Imsais, Mits, Horizons, and Apples. They amount to well over 400,000 machines. There are at least that many people fooling around with them, some of them intelligently. The end result is software, lots and lots of it. When MITS came out with their machine, I was a senior in high school or thereabouts. It has been three or four years since then, and I must say that the software is still awful. I haven't found a text editor that satisfies me, and the disk operating systems are jokes.

Well now, look what's coming down the mail shute, the 8086, the z8000, and the M68000. All are 16 bits. The Z8000 and the M68000 have "reasonable" instructions sets; the first is available in very limited quantities, the second isn't (but AMD is second-sourcing it!) and the third hasn't had a test substrate seen the inside of an oven yet (but it is supposed to come out February, 1979, at the time of this writing). The 68000, by what a thin flyer hinted, has the cleanest instruction set. It's architecture might still be early stone-age in the opinion of some people, but that's ok, I'll take one for now, 'to support the industry'.

The most important thing, the software, won't come around for another 2 to 3 years. That software will be superior to the stuff we're using on 8080s now (or ever) because the 8080 is horrible and the 68000, the z8000, and the 6809 (a souped up 6800) is not. The 8080 architecture cannot handle what the new 8 and 16 bit machines can do, which is allowing a programmer to program without tearing his hair out.

Famous phrase: "Software is years behind the hardware and will always be." This is because you don't normally write code for a machine that doesn't exist yet. Murphy's laws LOVE that sort of thing. The minute the on switch is flipped for the first time, the software jock has five years of labor ahead of him. Motorola is most likely using 68000 simulators on other machines to work up a disk operating system, assembler, and text editor, but nobody else can, the complete specs for the instruction set haven't been released.

The first language on the Z8000 and the 68000

will be Pascal. UCSD Pascal, that is. UCSD Pascal was designed to be transferrable. The operating systems will take a little time and effort, for they tend to be custom designed works of art. Then a volley of other languages will follow, including all your unfavorite bug infested traps like COBOL.

Usefullness is a nasty word. The definition of "useful" is not the same everywhere in computerland. "Useful" to a professor means "easier to learn, easy to implement, easy to debug, and easy to use." The person in the field thinks "useful" means "it works." Pascal has a long way to go to being widely accepted by people using large machines for payroll and stuff, not because its a lousy language, which one of the big guns for Interface Age magazine, Adam Osborne, tries to purport (he fails miserably in a recent editorial for interface age -- he seems to confuse Pascal with Algol), but because of a combination of minor details that get under the applicator's skin, like no symbol for exponentiation (FORTRAN has **, e.g. 3 ** 2 = 9), linking libraries of routines together, an everyday occurence in business software, is a pain in the ass, and an overwhelming lack of support software.

When you hear a professor espouse the niceties of a particular language, figure his words to mean what a user will say five years from now (an Urbana professor, at least). When a user says a language is nice, he means NOW and for his purposes. Therefore, when I say the 68000 is nice, since I am a computer science student, I mean it will be nice for users a few years from now. For most people, except hobbyists, "pioneers" and techies, that's what counts. The minute the first cheaper versions come out, the techies will be on top of the pack to get them. The idea is to get some fun out of them before they become a household word. If you, as a computer techie, wait until things settle down for any other reason except a money problem, you will probably feel miserable when some of the other folk bring System 68000s to a con...

✹

Let the Felger Carb!
An ICOSAHEDRON is a geometric solid with twenty faces. A Septillion is a BIG NUMBER. A Harpedonaptai is nothing unusual. What famous American dessert is another name for Ludolfine's Number? What are you accusing your most despised professor when you say he is 'using Gobar Numerals to explain something?' Did you know an ENNEAHEDRON is a polygon with nine faces? If so, you certainly are trivial.

The following is excerpted from a 1955 IBM sales brochure I found in a north side Chicago garbage can (Scrounging of course). Think how todays ads in Byte will look in 2000.

"IBM accepted the challenge of industry and the result was the development of its third and most productive large-scale computer. Operating as a unit, the Electronic Data Processing Machines have at least twenty-five times the over-all speed of their predecessor, the IBM Selective Sequence Electronic Calculator, through they require but a quarter of the space . Programming and operation are also greatly simplified."

"The vast power of these machines is achieved by combining advanced and highly-integrated storage mediums with the tremendous computing speeds of electronic tubes. These are not single-purpose machines, nor one-of-a-kind, but tremendously versatile machines actually in quanity production, and which - although designed principally for defense projects - have innumerable peacetime applications to engineering, research, and science."

"To attain these exceptionally high computing speeds, the computing circuits operate in the binary number system. Speeds and capacities mentioned this booklet are expressed in terms of equivalent numbers in the more familiar decimal numnber system. The machines can quickly convert from either system to the other."

"Tremendously fast calculating alone is not enough to provide the results demanded of these machines. Equally important is ultra-fast access to vast amounts of stored information. Electrostatic Storage, the newest and fastest "memory" system yet developed, provides this. The 72 cathode ray tubes of the Electrostatic Storage Unit, at the right (Sorry, no pictures - AE), have a capacity of 10,240 digits. Using this advanced technique, data can be placed in storage or obtained from it in 12/1,000,000 of a second."

If you've ever used a front panel... "The Electronic Data Processing Machines, though primarily, controlled by their own stored program of instructions, are under the direct supervision of one person. From the Operator's Panel, he can, when required, easily change the course of a problem by adding or changing instructions or data. (NO, NO, don't touch that button!! - AE) Indicator lights on the panel enable him to determine at a glance (ha! - AE) the exact phase of the work being processed and to observe what number is stored in any location of the Electronic Storage Unit."

✹
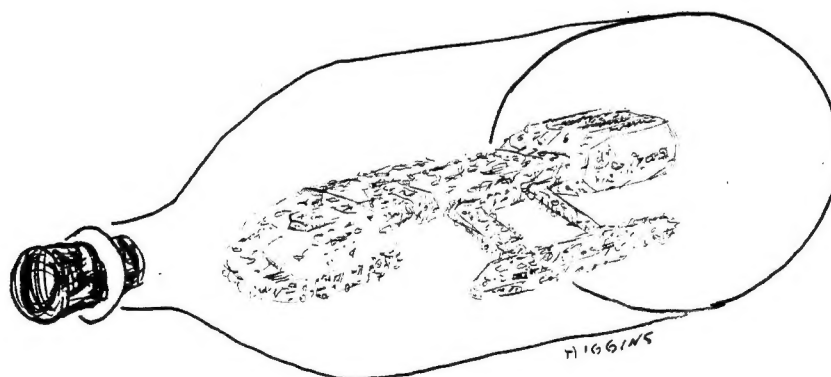
BOTTLESTAR GALACTICA

HIGGINS

shit in bottle?

GOOD-BYE, CHICAGO

Funny, all the little coincidences thrown out by life's random number generator, if you have a mind that spots them. Way back in the 1850's a family of Bavarians emigrated to the midwest and settled in the prairie town of DesPlaines, a quarter mile north of a dirt road which would someday be called Devon Avenue. Their name was Duntemann. In 1918 a young doughboy named Harry Duntemann came back from WWI a boy no longer. He defied his Lutheran father, married an Irish Catholic woman, and moved to the Chicago lakefront, about a mile south of Devon Avenue. Harry became a banker and had one son. Frank Duntemann returned from WWII a boy no longer. He defied his banker father, became an engineer, and with his new wife moved all the way back across town to the city limits, right next to DesPlaines--two blocks south of Devon Avenue.

Frank Duntemann had one son. Without a war to make him grow up, he stayed pretty much a boy, and learned to get what he wanted by talking fast rather than by defiance. When he wanted an apartment, the son moved back east again, nearly to the lakefront, one block north of Devon Avenue. When the son got tired of sleeping alone he took a wife and moved six blocks away to another apartment--seventy feet north of Devon Avenue. Later, when he made some bucks, he bought a house, not quite two blocks south of Devon Avenue.

Whacky, huh? Five generations of Duntemanns have managed never to live farther than a mile from Devon Avenue, which is a fascinating main street forming a roof on Chicago's North Side. It wasn't planned that way. It just sort of happened.

Well, something else has just sort of happened. A couple weeks back I was promoted to a real honest-to-gawrsh engineering job in corporate headquarters, Rochester NY. My father was too damned reasonable for me to have to defy him. I'm defying a street instead.

Breaking a bond like that won't be easy. Up and down that street lies a city I love quite a bit, and all of my roots unto the fifth generation. Crossing Devon Avenue alone to play in Olympia Park was a rite of passage. Half the stories I wrote at the Clarion Writers' Conference took place in Chicago, which (said I) by the 24th century had become the capital of the civilized galaxy.

A lot of great people live in Chicago. Plenty of dingbats and assholes too, but in no greater proportion than you'd find in any big city. I have friends all over the place in every walk of life, but it is the Rogers Park Thursday Night community I will miss the most of all. Every Thursday night a bunch of people meet somewhere on the North Side, and General Technics dominates the numbers. Among them I have argued and laughed, been laughed at and tickled, held and been held, spoken softly and sternly and outrageously. I have eaten a lot of potato chips and drunk a lot of Coke. I have rolled on the floor and made funny noises and sang a lot of silly songs. During the day I am a mild-mannered tech writer for a great metropolitan copier company, but at heart I am an outrageous little boy with a lot of crazy ideas and a wild lust for life. On Thursday Night I can be more nearly myself than at any other time. To everyone who has shared the Thursday Night Experience with me these past several years, all I can say is: I love you all. Beyond that, words fail me.

Some time over the weekend of March 9-12, Carol and I will stuff far too much junk in the back of Tigger and roll down the road to Rochester. Moving in the corporate mileau is a protracted affair that won't be complete for a couple of months. I don't know yet where we will be living permanently, but we will send a temporary address out as soon as we have it. We will buy a house and move in certainly by the middle or end of May. In June sometime we will have as bang-up a Duntemann housewarming party as ever there was, and anyone who wishes to go the miles is enthusiastically welcome.

Chicago to Rochester is 621 miles, 100% interstate highway, so it's probably not as bad as it sounds. Can you make it? Please try. The details will appear in Pyro as they happen.

And now, what of Pyro and GT? No sweat, really. The last couple of Pyros have given me a little breathing space, and promise, #20 will be back to the old mold.

I hope more than ever that I will be able to make the con circuit with everybody else, and you do have my solemn promise that barring some sort of disaster I will never miss a Windycon. You can see now more than ever that I will have to rely on the mails for news of what's going on. I plan on systematizing correspondence to handle it better without drowning in sheer numbers. Write to me and tell me what's going on.

I strongly recommind that in larger towns where a few GT people may live, try and arrange a weekly social gathering similar to Thursday Night in Chicago. Local fannish types will sniff you out eventually and you may get a real smooth thing going, and sense of community is a rare feeling these days. It's worth fostering. If these gatherings do take place, make sure I hear about them.

I know a lot of you people either own computer systems with impact (as opposed to matrix) printers, or else have access to them at work or school. If you do, try and send me Pyro material already edited and printed in 50 character columns. Most modern text editors intended for word processing (as opposed to source file generation) justify both margins. Do that if you can. Write the article, excise spelling booboos, slip a fresh ribbon into the printer and print out the whole article in continuous 50 character wide format. I will cut it out right to the edge of the margins and paste it to the master sheets as they fit.

I have to emphasize the fresh ribbon proviso. Most terminal ribbons are run wey past their repro-useful lives. Maybe you can see those letters, but it's even money my 9400 duplicator can't. Sending me pre-edited cut copy is the best way known to avoid embarrassing wiseass editorial insertions. It also saves me a lot of work, and that is more appreciated these busy days than anything else. If you do send me edited cut copy, briefly describe the system it's being run on, and whether that system is yours or not.

Does anyone know anything about the Compucolor II computer? I am shopping for a "big" system, and know very little about it. Please zip me off a copy of anything you have.

As far as I can tell, there will be Pyros coming for the forseeable future. Do what you can to help me keep a good thing going. (Just remembered--If you send me any kind of artwork, don't use pencil, blues, or greens. Stick to black if you can. Xerographic equipment is color-blind in some very odd ways.)

****Late addendum--Carol and I have reserved an apartment in south suburban Rochester for temporary living quarters. Glancing at my map last night I noticed that the apartment complex lies--yes indeed--just half a mile south of--ulp--Devon Avenue. Never try to defy a street that's got you by the ass!****

BIONIC MESKUNITE

HOUSECOOLING PARTY

...not that a Chicago house needs any help, but...well, Jeff & Carol
are pulling the plug on Campbell Avenue and rumbling on to
different if not more temperate climes. Why not be a part
of our cryogenic celebration and show up Saturday night, March 3,
after 7:30 or so? Lots of cool people will be there--
bring your own freon!

6208 North Campbell Avenue
Chicago 60659
764-5069

THAT'S **NOT** OUR
HONDA, DEAR....

HIGGINS

EVOLVE...WITH LISLE FANDOM

Bill Colsher
Michelle Colsher
W. Skeffington Higgins

On February 10
Lisle Fandom will
host a party in
honor of the birthday
of Charles Darwin.
You too can be a part of
this Historic Event. Simply
Come on out to Bill and Michelle's
apartment at 4328 Nutmeg Lane #111
in Lisle about 7:30 or so on the
10th. You'll be glad you did!

GETTING HERE:
    Take Route 5 (E/W Tollway) west to
53 South - Turn Left onto RIGHT
Warrenville Rd. Go west on Warrenville
about 1 mile to Arboretum Village Apts. (on the left)
Follow Map Below.

4328 IS
ALL THE WAY
BACK. NUTMEG LN.
IS THE PARKING LOT.

HIGGINS

(PRECEDING PAGE)

A NEW GT ART FORM----THE PARTY FLYER!

On the previous page are two rare Bill Higgins originals which which foreshadow what I predict will be a brand new art form. They are flyers done to advertise big general parties thrown by some Chicago-area GT people.

In the future we hope to run more of this type of thing, so if anyone else has a cartoon-type party flyer drawn up, pass it along, so we can share it with everybody else. GT has among its numbers three of the hottest techie artists in all fandom: Phil Foglio, twice Hugo winner; Chris Cloutier, who hasn't the vaguest notion how good he is, and Bill Higgins, co-creator of Mesklinite cartoons and executer of some of the slickest cartoons ever seen in PyroTechnics or anywhere. Take notice, people--it ain't many organizations which can boast so much talent under one zine masthead.

Rex Thomas Nelson tried to join GT some time ago, but sent his stamps in folded with the gum sides together, and along the way the Pissed Office dropped the envelope in a puddle. Needless to say, all his stamps became the closest of friends and were inseparable. I returned them with an exhortation to stick wax paper between folded halves of a stamp sheet, or at least fold them with the gum side out. He finally did after almost a year. His lesson is worth remembering. Stamps always stick the tightest where you want them to stick the least, and vise versa. Caveat.

Rex also mentions that he just bought a PET, and would like to use it to control a little slave COSMAC-run robot. Sounds like a lot of headaches but good fun. Get at it, Rex.

Marcon is in March this year. (Sunuvugun!) Mark off the 16-18 on your calendar and don't miss it. GOH is Katherine Kurtz.

Mark Evans will be marrying Margaret Henry May 12th. He sends his regrets for not being able to invite all of GT, or even any of GT, but adds that it will be a small ceremony and his relatives bite when crowded.

Gus Flassig received his Novice call and is now KA9DDC. Gus is the first GT person to receive a ham license since my call to action. Who'll be next? Come on, don't all speak up at once!